AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of tracking a user in a communication network supporting a broadcast-multicast service, comprising:

classifying groups of users into tracking areas at the network;

transmitting an overhead message including an indicator value to at least one user of a group; and

tracking movement of the at least one user of the group based on a tracking area registration update message received from the user that is enabled or disabled based on the indicator value, and wherein

the indicator value enables the tracking area registration update message if the at least one user is in a sector on a boundary between at least two tracking areas and the indicator value disables the tracking area registration update message if the at least one user is not in a sector on the boundary.

2. (Original) The method of claim 1, wherein the classifying step further includes classifying non-overlapping sectors into broadcast-multicast service tracking areas, each sector including one or more multicast groups of users.

3. (Original) The method of claim 1, further comprising:

determining a change in tracking area for the at least one user based on one of an adding criteria and a dropping criteria.

4. (Original) The method of claim 3, wherein

each tracking area includes one or more groups of sectors, each sector including one or more multicast groups of users, and

the adding criteria and dropping criteria includes comparing pilot signal strengths of sectors to at least one threshold.

5. (Original) The method of claim 1, wherein the tracking step further includes:

tracking the user based on information related to a tracking area change received from the user.

6. – 7. (Cancelled)

8. (Original) The method of claim 1, wherein the tracking step further includes:

tracking the user based on a registration message received from the user subsequent to a detection of a tracking area change by the user.

9. (Original) The method of claim 1, wherein

non-overlapping tracking areas are defined and consist of one or more sectors in the network, and

the tracking step further includes:

the network transmitting information related to the tracking areas of current and neighboring sectors; and

the user responding to these transmission to enable tracking of the user by the network.

10. (Original) The method of claim 5, wherein the information related to tracking areas is included in system overhead transmitted to the one or more sectors.

11. (Currently Amended) A method by which a user provides a tracking area registration update to a network supporting a broadcast-multicast service, the network serving a plurality of tracking areas, each tracking area containing one or more non-overlapping sectors, comprising:

receiving an overhead message including an indicator value from a serving sector;

evaluating pilot strengths of M strongest sectors against a given criteria to determine a change in tracking area after expiration of a given time interval;

enabling a tracking area registration update message based on the indicator value received in the overhead message; and

sending a tracking area registration update message to the network to update the location of the user based on a result of the evaluating step.

12. – 14. (Cancelled)

15. (Currently Amended) The method of claim 11~~12~~, wherein the evaluating pilot strengths step~~trigger~~ is based on the pilot strengths of the M strongest sectors~~on pilot signal strengths of one or more sectors of a tracking area~~ exceeding a given threshold or falling below a given threshold for a given period of time.

16. (Cancelled)

17. (Currently Amended) A method of tracking a user in a communication network supporting a broadcast-multicast service, the network serving a plurality of tracking areas, each tracking area containing one or more non-overlapping sectors, each sector having one or more groups of users, comprising:

transmitting an indicator value in an overhead message for enabling or disabling tracking area updates from users of the sector; and

determining user location of at least one user within one of the tracking areas based on a response from the at least one user to the indicator value, and wherein

the transmitting step transmits an indicator value enabling registration update messages if the users are in a sector on a boundary between at least two tracking areas and transmits an indicator value disabling the tracking area registration update message if the users are not in a sector on the boundary or an uplink is overloaded.

18. (Original) The method of claim 17, wherein the determining step includes:

after expiration of a given time interval, the user evaluating pilot strengths of M strongest sectors against a given criteria to determine a change in tracking area, and

the network receiving the response based on a result of the evaluation, the response embodied as a tracking area update registration message from the user.

19. – 24. (Cancelled)

25. (Currently Amended) In a network supporting a broadcast-multicast service and serving a plurality of sectors, groups of sectors further classified by the network into a plurality of tracking areas, each sector having one or more groups of users, a method of obtaining registration to track location of a user in a tracking area, comprising:

transmitting an overhead message from each sector to its corresponding groups of users, the overhead message including an indicator value enabling or disabling a registration update message from the users; and

receiving a registration from at least one user that is based on user detection of the indicator value, and wherein

the transmitting step transmits an indicator value enabling the registration update messages if the users are in a sector on a boundary between at least two tracking areas and transmits an indicator value disabling the registration update message if the users are not in a sector on the boundary or an uplink is overloaded.

26. (Cancelled)

27. (New) A method of tracking a user in a communication network supporting a broadcast-multicast service, comprising:

classifying groups of users into tracking areas at the network;

transmitting an overhead message including an indicator value to at least one user of a group; and

tracking movement of the at least one user of the group based on a tracking area registration update message received from the at least one user that is enabled or disabled based on the indicator value, and wherein

the indicator value disables the tracking area registration update message if an uplink is overloaded.

28. (New) The method of claim 27, wherein the classifying step further includes classifying non-overlapping sectors into broadcast-multicast service tracking areas, each sector including one or more multicast groups of users.

29. (New) The method of claim 27, further comprising:

determining a change in tracking area for the at least one user based on one of an adding criteria and a dropping criteria.

30. (New) The method of claim 29, wherein

each tracking area includes one or more groups of sectors, each sector including one or more multicast groups of users, and

the adding criteria and dropping criteria includes comparing pilot signal strengths of sectors to at least one threshold.

31. (New) The method of claim 27, wherein the tracking step further includes:

tracking the user based on information related to a tracking area change received from the user.

32. (New) The method of claim 27, wherein the tracking step further includes:

tracking the user based on a registration message received from the user subsequent to a detection of a tracking area change by the user.

33. (New) The method of claim 27, wherein

non-overlapping tracking areas are defined and consist of one or more sectors in the network, and

the tracking step further includes:

the network transmitting information related to the tracking areas of current and neighboring sectors; and

the user responding to these transmission to enable tracking of the user by the network.

34. (New) The method of claim 31, wherein the information related to tracking areas is included in system overhead transmitted to the one or more sectors.